

State of Connecticut
Disaster Debris Management Plan, revised June 2013
Annex to the State Natural Disaster Plan, 2009

- In general, current law is barely adequate to deal with existing abandoned boats and is ill prepared to deal with a mass vessel displacement event. It is the aim of DEEP's Boating Division to revamp current abandoned boat law to streamline it and to make it scalable so as to be able to deal with a mass displacement event. Until then, care must be exercised to work within the existing law to prevent claims against the state, and to work with federal agencies to access supporting funding where available. DEEP should be prepared to implement a web-based, publically available, database providing information helpful in determining the ownership of a collected boat. Such database should include, at a minimum, the following information for each boat collected: the body of water from which the vessel was collected, the vessel registration and/or hull identification number, the vessel name (if any), identifying colors, the make and model of the vessel, and aggregation site location. The database should be constructed so as to allow the owner to correspond with DEEP confidentially, to expedite the reunion of vessel owners with their vessels.
- Enhanced coordination and planning with the utility companies will improve response time to begin collection and removal of waste in the right of way thereby getting this waste to a processing facility quicker for disposal and/or recycling.
- Enhanced communication, coordination, and planning with municipalities with regard to managing disaster debris. Provide technical assistance with regard to the proper siting and authorization of DMS.

ABBREVIATIONS

Below are the acronyms and definitions used in this Plan

<u>Acronym</u>	<u>Definition</u>
ABC	Asphalt, Brick, and Concrete Rubble
ACM	Asbestos Containing Material
CFR	United States Code of Federal Regulations
CGS	Connecticut General Statutes
C&D	Construction and Demolition Debris
ConnDOT	Connecticut's Department of Transportation
Conn-OSHA	Connecticut's Department of Labor, Division of Occupational Safety and Health
ConOps	Connecticut's Concept of Operations Plan for Disaster Debris Management
DEEP	Connecticut's Department of Energy and Environmental Protection
DAS	Connecticut's Department of Administrative Services
DAS/BPFM	Connecticut's Department of Administrative Services, Bureau of Property and Facilities Management.
DESPP/CSP	Connecticut's Department of Emergency Services and Public Protection, Connecticut State Police
DESPP/DEMHS	Connecticut's Department of Emergency Services and Public Protection, Division of Emergency Management and Homeland Security
DMS	Debris Management Site
DOL	Connecticut's Department of Labor
DPH	Connecticut's Department of Health
DESPP	Connecticut's Department of Emergency Services and Public Protection
EMAC	Emergency Management Assistance Compact
EOC	Connecticut's State Emergency Operations Center
USEPA	United States Environmental Protection Agency
ESF	Emergency Support Function
FCO	Federal Coordinating Officer
FEMA	Federal Emergency Management Agency
HHW	Household Hazardous Waste

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ICM	Incident Command System
IDMTF	Interagency Debris Management Task Force
JIC	Joint Information Center
MSW	Municipal Solid Waste
NHMP	Natural Hazard Mitigation Plan
NDP	State of Connecticut Natural Disaster Plan
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NIMS	National Incident Management Systems
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resource Conservation Service
NWS	National Weather Service
OSHA	U.S. Department of Labor, Occupational Health and Safety Administration
PA	Public Assistance
PAO	Public Assistance Officer
PCB	Polychlorinated Biphenyl
RCSA	Regulations of Connecticut State Agencies
RFP	Request for Proposal
RRF	Resources Recovery Facility
RSR	Connecticut's Remediation Standard Regulations
ROW	Right-of-Way
SCO	State Coordinating Officer
SWMP	State of Connecticut's Solid Waste Management Plan
TCLP	Toxicity Characteristic Leaching Procedure
TSCA	Toxics Substance Control Act
TS	Transfer Station
U.S. or US	United States
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
VRP	VRF Volume Reduction Plant

REFERENCES

State of Connecticut

- State of Connecticut Disaster Debris Management Preparedness web page:
www.ct.gov/deep/disasterdebrismanagement
- State of Connecticut Contracts: Disaster Debris Management Services (No. 08PSX0027AA and AB) and Disaster Debris Monitoring Services (No. 08PSX0028AA) have been extended through June 30, 2014. DAS link: http://www.biznet.ct.gov/SCP_Search/Default.aspx?AccLast=1
 - **Debris Management and Removal** provides for clearing, collecting and transporting debris, establishing and operating temporary debris management sites, and ensuring ultimate recycling or disposal of debris.
 - A copy of the contract may be accessed through the Department of Administrative Services (DAS) website: [DAS Contract 08PSX0027--Debris Removal](http://www.biznet.ct.gov/SCP_Documents/Results/5498/008_0027.pdf) or http://www.biznet.ct.gov/SCP_Documents/Results/5498/008_0027.pdf
 - **Debris Monitoring (and Documentation)** provides for monitoring of debris removal operations and debris site management. The monitoring contract also provides comprehensive oversight, guidance and documentation services. This monitoring is required to receive potential federal reimbursement for disaster debris management expenditures under Program, as applicable.
 - A copy of the contract may be accessed through the DAS website: [DAS Contract 08PSX0028-Debris Monitoring and Documentation](http://www.biznet.ct.gov/SCP_Documents/Results/6770/008_0028.pdf) or www.biznet.ct.gov/SCP_Documents/Results/6770/008_0028.pdf
- State Response Framework (SRF), Version 2.0 August 2011
Or, http://www.ct.gov/demhs/lib/demhs/ct_srf_aug_2011.pdf
- State of Connecticut, Natural Disaster Plan, 2009, Connecticut Department of Emergency Services and Public Protection.
Or, http://www.ct.gov/demhs/lib/demhs/plans/connecticut_natural_disaster_plan_-2009.pdf
- State of Connecticut, Concept of Operations – Disaster Debris Management, Activation and Use of the State Debris Removal and Monitoring Contracts, June 2012.
- State of Connecticut, Natural Hazard Mitigation Plan, Connecticut Department of Energy and Environmental Protection.
Or, http://www.ct.gov/dep/cwp/view.asp?a=2720&q=325654&depNav_GID=1654
- State of Connecticut, Solid Waste Management Plan, amended 2006, Connecticut Department of Energy and Environmental Protection, 2006.
Or, http://www.ct.gov/dep/cwp/view.asp?a=2718&q=325482&depNav_GID=1639
- State of Connecticut Department of Labor, Division of Occupational Safety and Health, Emergency Operations Plan, January 26, 2007.

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FEMA:

- Public Assistance Policy Digest, **FEMA 321 / January 2008**
Or, <http://www.fema.gov/pdf/government/grant/pa/pdigest08.pdf>
- Public Assistance Guide, **FEMA 322 / June 2007**
Or, <http://www.fema.gov/pdf/government/grant/pa/paguide07.pdf>
- Public Assistance Applicant Handbook, **FEMA P-323 / March 2010**
Or, http://www.fema.gov/pdf/government/grant/pa/fema323_app_handbk.pdf
- Public Assistance Debris Management Guide, **FEMA 325 / July 2007**
Or, <http://www.fema.gov/pdf/government/grant/pa/demagde.pdf>
- Debris Estimating Field Guide, **FEMA 329 / September 2010**
Or, http://www.fema.gov/pdf/government/grant/pa/fema_329_debris_estimating.pdf
- Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, and Related Authorities, **FEMA 592 / June 2007**
Or, http://www.fema.gov/pdf/about/stafford_act.pdf
- Debris Management Plan Workshop, Student Guide, **FEMA 604/July 2007**
- FEMA Recovery Division Debris Contracting Guidance Fact Sheet RP9580.201 / September 2010
Or, http://www.fema.gov/pdf/government/grant/pa/9580_201.pdf
- Participant Manual, Debris Management Course, FEMA, National Emergency Training Center, Unit 8 – Selecting and Operating Temporary Storage Sites.

USEPA

- Planning for Natural Disaster Debris, United States Environmental Protection Agency, March 2008.
Or, <http://www.epa.gov/osw/conserve/imr/cdm/pubs/pnnd.pdf>
- Guidance for Catastrophic Emergency Situations Involving Asbestos, December 2009; U.S. Environmental Protection Agency, Office of Enforcement and Compliance Assurance, Office of compliance
Or, http://www.iowadnr.gov/portals/idnr/uploads/air/insidednr/asbestos/asbestos_guidelines.pdf
- Planning for Polychlorinated Biphenyl (PCB) Containing Disaster Debris, June 2011, U.S. Environmental Protection Agency
Or, <http://www.epa.gov/wastes/homeland/docs/pcb-disposal.pdf>

Other States

- Guidance for Establishment, Operation and Closure of Staging Areas for Hurricane-Generated Debris, Florida Department of Environmental Protection, Nov. 19, 2004 (updated Sept. 22, 2005).
Or, http://www.dep.state.fl.us/mainpage/em/files/0922_debris_guidance.pdf

West Virginia Resilient Community Workshops

I. Purpose

To provide communities impacted by the 2016 flood with a technical assistance workshop to develop a strategic recovery and resiliency action plan. The tailored workshop will built upon input from key stakeholders, and the action plan will contribute to the long term recovery and resiliency of their communities. State and federal resources will work with communities to identify potential funding sources for implementation of the plan.

II. Objectives

1. Identify up to three (3) high impact/low capacity communities affected by the June 2016 floods that have a need to develop a strategic action plan for disaster recovery.
2. Hold a consultation with community leaders to determine the needs of the area and work collaboratively to identify relevant topic areas for the workshop.
3. Provide a targeted and tailored 2 day workshop to the communities using state and federal resources that culminates in the creation of an action plan to address specific community needs and long-term resiliency.
4. Showcase targeted examples from West Virginia communities who are planning and moving toward the economic, social and environmental sustainability of their communities through EPA Technical Assistance programs.
5. Utilize graduate level Environmental Science students to offer additional consultation services to benefit communities.
6. Assist with the identification of state and federal resources to implement the projects and policies identified in the action plan.

III. Deliverables

1. Custom, two day-workshop focused on targeted and community specific recovery priorities and objectives.
2. Detailed action plan that summarizes workshop activities and recommends strategies and funding sources to assist long-term recovery.
3. Additional research and action plan developed by Environmental Science graduate students.
4. FEMA/EPA collaboration model that can be duplicated in other regions of the country.



FEMA



IV. Proposed Targeted Topics

Through the consultation process, communities will be given a menu of potential topics to address at the workshop. FEMA and EPA will talk through the options and help the communities to identify relevant focus areas for their community's disaster recovery process. EPA will then build a team of subject matter experts around the identified topics, who will facilitate the workshop and assist in the completion of the action plan. Graduate students will work with the other partners to identify specific topic areas to assist the communities and fulfill class requirements. State and federal partners will assist with the identification of funding and resources to help the communities to implement the action plan. Potential topic areas include:

- **Downtown Revitalization / Main Street:** Strategies to strengthen or revitalize traditional downtowns and main streets, and to boost the local economy, improve quality of life and strengthen overall resiliency.
- **Outdoor Recreation for Economic Development:** Strategies to enhance current recreational assets, and assessment and recommendations to expand outdoor recreational facilities and spur economic development.
- **Local Foods/Sustainable Farming:** Strategies that promote local foods/sustainable agriculture, community gardens and overall community revitalization.
- **Broadband Access:** Strategies for how to: leverage current broadband capabilities; expand/improve access speed; and ways broadband can improve quality of life, attract economic development and make communities more resilient.
- **Healthy Places for Healthy People:** Strategies to help communities create walkable, healthy, economically vibrant places by engaging with their health care facility partners such as community health centers (including Federally Qualified Health Centers), nonprofit hospitals, and other health care facilities.
- **Green Infrastructure/Stormwater Management:** Planning and strategy development that integrates stormwater management and nuisance flooding with broader community plans for economic development, infrastructure investment and environmental compliance.
- **Flood Resilience:** Strategies to help communities prepare for natural disasters and plan for disaster resilience by assessing local plans, policies, and development regulations.
- **Preservation of Existing & Historic Buildings:** Discussion and strategies of how preservation and reuse of historic buildings supports sustainable communities.
- **Water, Wastewater, Energy Utility Resiliency:** Providing sources of alternate power to the drinking water pump stations, wastewater treatment and power for continuous energy supply.
- **Business Resiliency:** Strategies to develop and increase the number of businesses with continuity and succession plans to assist with post disaster recovery.

**Additional topics can be discussed during the consultation and used if team of subject matter experts can be developed for the workshop.*



FEMA



V. Workshop Timeline

Action Item	Deadline
Finalize List of Communities	January 2018
Hold Community Consultations	February 2018
Finalize Dates for Workshops	March 2018
Secure Locations for Workshops	March 2018
Deliver Workshops	April – May 2018
Complete Action Plan	June 2018
Hold Follow Up Consultation with Communities	July – August 2018

VI. Role of Environmental Science Graduate Students

Through EPA and FEMA networks, Dr. Terry Polen of the West Virginia Department of Environmental Protection has been identified as a partner and stakeholder in the recovery efforts. Dr. Polen is also an adjunct professor in the Environmental Sciences Department at the University of Maryland's City College. He teaches an online, graduate level course and has offered his student's services to support the long-term recovery in West Virginia. There is a natural connection to the environmental science course and resilience needs in the impacted communities. The students will perform the proposed objectives during the spring 2018 semester:

1. After the community consultation, the students will select 1-2 topic areas for each community that fulfill course requirements for their program.
2. Students will spend the semester: researching the topic and town; analyzing case studies and other resources; and creating strategies and a report to be presented and discussed at the workshop.
3. After community input is received, the students will revise their report by incorporating the new community input or any additional information.
4. The students will then submit the final draft of the report to the community.
5. FEMA, EPA and the students will ultimately discuss the final report with the communities during the follow up consultation.



FEMA



VII. Pre-Workshop Actions Items

1. Identify up to three flood impacted communities to create a custom, two-day showcase workshop to support the long-term recovery and resiliency of the community. Proposed communities include:
 - a. *Clendenin*
 - b. *Richwood*
 - c. *White Sulphur Springs or Rainelle (Phase II Project)*
 2. Send the communities a questionnaire and read ahead documents in preparation for consultation.
 3. Hold a community consultation with stakeholders to assess current needs and identify relevant resiliency topics. Proposed participants will include, but not be limited to:
 - a. *Mayor*
 - b. *Council Representation*
 - c. *County Commission*
 - d. *Regional Planning & Development Council*
 - e. *Local non-profit organizations*
 - f. *Representation from Long-Term Recovery Committee*
 4. Consult with graduate students to determine scope of their work for each community.
 5. Identify and secure physical location for the workshops.
 6. Identify and secure facilitation and support staff for workshops.
 7. Identify West Virginia or regional examples from EPA Technical Assistance and brownfields programs as case studies for resilience.
 8. Identify appropriate local, state and federal contacts to participate in workshops.
- Proposed participants will include, but not be limited to:

Local	State	Federal
Mayor & Council	WV DHSEM	FEMA
County Commission	WV Department of Commerce	HUD
RPDC	WVNG	EDA
LTRC	WV DEP	EPA
Non-Profit Organizations	WV Brownfield Centers	USACE
Chamber of Commerce	WVU Land Use Clinic	ARC

*Additional participants will be invited once a community chooses topical areas for the workshop.



FEMA



Tarry, Russell W

From: Farkas, Brian <bfarkas@wvca.us>
Sent: Wednesday, January 31, 2018 11:52 AM
To: Tarry, Russell W
Subject: RE: Project Description sheet
Attachments: Debris Plan proposal .docx

Russell,

Take a look at this and tell me if I'm going in the right direction. What's needed?

Brian Farkas
Executive Director
West Virginia Conservation Agency
1900 Kanawha Blvd., E
Charleston, WV 25305
Phone: 304-558-2204
Cell: 304-549-2602
E-mail: bfarkas@wvca.us

From: Tarry, Russell W [mailto:Russell.W.Tarry@wv.gov]
Sent: Wednesday, January 31, 2018 9:09 AM
To: Farkas, Brian <bfarkas@wvca.us>
Subject: FW: Project Description sheet

Russell W. Tarry | Deputy Director

Community Advancement and Development
A Division of the West Virginia Development Office
1900 Kanawha Boulevard East
Building 3, Suite 700
Charleston, WV 25305
(304) 558-2234 | wvcad.org  



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Sent: Friday, January 19, 2018 4:10 PM
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Subject: FW: Project Description sheet

Brian,

Here is the one page proposal doc

Thanks and have a good weekend

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From: Tarry, Russell W

Sent: Tuesday, January 02, 2018 4:24 PM

To: 'Farkas, Brian' <bfarkas@wvca.us>

Cc: Mary Jo Thompson (Mary.Jo.Thompson@wv.gov) <Mary.Jo.Thompson@wv.gov>; Trautwein, Hannah <Hannah.Trautwein@wv.gov>

Subject: Project Description sheet

Brian,

Attached is the project description sheet that is used by our Business and Industry division that we think could also work for our purposes in CAD. Please use this sheet to detail each of the plans/initiatives that you had proposed to Mary Jo and I. The fields will expand if you need additional space.

Thanks,

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Project Document

Project Applicant:

Date:

Project Name	West Virginia Disaster Debris Management Plan
Description <i>Clarifies the scope of the project</i>	Development of a plan to guide state and local agencies on how to properly manage debris generated by natural disasters such as flooding, tornado, snow, ice storm.
How the Project is Transformational <i>Ensures that the project infuses scalable and/or sustainable capability for the WVDO efforts going forward</i>	West Virginia currently does not have a recognized debris removal plan for state and local agencies to follow. This plan would create a framework for decision-makers by defining the various roles, responsibilities and procedures. It would also provide guidance for development and implementation for activities involved in managing debris removal operations following a natural disaster.
Project Goals	Develop document that defines the roles, responsibilities and procedures for managing debris removal activities following natural disasters in the state of West Virginia.
Key Activities	Review of existing debris management plans adopted by other states. Gather various stakeholders to identify process to develop the plan.
Milestones	
Finish Date	June 30, 2019
Deliverables/Results	Debris Management Plan
Anticipated Challenges	Obtaining input from the various state and local entities required to implement such a plan.
Resources/Budget	\$35,000

Project Goal:

Activities	Completion Date	Budget/Resources	Anticipated Challenges

Project Goal:

Activities	Completion Date	Budget/Resources	Anticipated Challenges

Project Goal:

Activities	Completion Date	Budget/Resources	Anticipated Challenges



west virginia
CaD RESILIENCY OFFICE
COMMUNITY ADVANCEMENT AND DEVELOPMENT



Tarry, Russell W

From: Tarry, Russell W
Sent: Wednesday, January 31, 2018 12:04 PM
To: Farkas, Brian
Cc: Trey Breckenridge; Daron Wilson; Mihallik, Andrew G
Subject: RE: Project Description sheet
Attachments: Debris Plan proposal .docx

I think it looks like a pretty good start. I would specifically mention the disaster of 2016 and the 12 counties affected that will be included to make the connection for our funds. I have added a couple folks in case they have some thoughts as well. I have given them a very brief idea of what we are trying to accomplish.

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Tarry, Russell W

From: Tarry, Russell W
Sent: Wednesday, January 31, 2018 12:48 PM
To: Young, James; Alston, Julie A
Subject: RE: Resilient Community Workshops

I think there are some meetings in our conference room in the morning, so I can come to your office for both. Ill check if the rest of the team will be joining or calling-in for the first meeting on CDBG-DR/HMGP.

For the Resiliency Community Sessions discussion, it might just be me for this first one and then I will bring other folks in. Some people are tied up or out tomorrow. If you send the invite to everyone, maybe some can call in.

Russell W. Tarry | Deputy Director

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From: Young, James [mailto:james.young@fema.dhs.gov]
Sent: Wednesday, January 31, 2018 10:48 AM
To: Tarry, Russell W <Russell.W.Tarry@wv.gov>; Alston, Julie A <Julie.A.Alston@hud.gov>
Subject: RE: Resilient Community Workshops

I think we can make that work. Would you want to come over here for the 9am call and then meet right after? We could do the same thing at your place if it works better.

James Young

Interagency Recovery Coordination Lead
FEMA Region III - West Virginia Recovery Office
202.394.0229 - james.young@fema.dhs.gov

From: Tarry, Russell W [mailto:Russell.W.Tarry@wv.gov]
Sent: Wednesday, January 31, 2018 10:45 AM
To: Alston, Julie A <Julie.A.Alston@hud.gov>; Young, James <james.young@fema.dhs.gov>
Subject: RE: Resilient Community Workshops

I could do something after our regular call in the morning? Afternoon is out for me.

Russell W. Tarry | Deputy Director

Community Advancement and Development
A Division of the West Virginia Development Office
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From: Alston, Julie A [<mailto:Julie.A.Alston@hud.gov>]

Sent: Wednesday, January 31, 2018 10:42 AM

To: Tarry, Russell W <Russell.W.Tarry@wv.gov>; James Young (james.young@fema.dhs.gov)
<james.young@fema.dhs.gov>

Subject: RE: Resilient Community Workshops

I could do tomorrow.

From: Tarry, Russell W [<mailto:Russell.W.Tarry@wv.gov>]

Sent: Wednesday, January 31, 2018 10:35 AM

To: Alston, Julie A <Julie.A.Alston@hud.gov>; James Young (james.young@fema.dhs.gov) <james.young@fema.dhs.gov>

Subject: RE: Resilient Community Workshops

I could fit something in tomorrow if we need to. or we could do next week?

Russell W. Tarry | Deputy Director

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<james.young@fema.dhs.gov>

Subject: RE: Resilient Community Workshops

GOVERNOR'S FLOOD RECOVERY & ALLIANCE SESSION



SRO Workgroup Meeting February 15th, 2018 AGENDA

10:00 AM **Welcome & Introductions of New Agencies**

Draft SRO Charter and Framework Update
-Russell Tarry and James Young

Overview of Debris Management Plan
-Brian Farkas

New Business

Set Next Meeting

11:00 AM **Adjournment**

U.S. Army Corps of Engineers (USACE) Programs and Authorities

November 13, 2017



"The views, opinions and findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."

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and Taking Care of People!



U.S. Army Corps of Engineers (USACE) Our Mission & Vision

- **Mission**
 - ▶ Deliver vital public and military engineering services; partnering in peace and war to strengthen our Nation's security, energize the economy, and reduce risks from disasters.
- **Vision**
 - ▶ Engineering solutions for our Nation's toughest challenges.

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2





Huntington District

Value to Nation

Our portfolio of projects have reduced over \$13.7B in flood damages (\$258M in FY 16)

More than 76M tons of cargo worth over \$17B passed through our nine locks and dams, saving over \$1B in transportation costs in 2015

As the region's leading provider of recreation opportunities, our projects hosted over 28M visitors and supported 12,500 jobs in 2012

Our regulatory program preserves the Nation's aquatic resources and navigation capacity, while allowing reasonable development through fair and balanced decisions

Our workforce has deployed over 750 employees around the Nation providing relief from natural disasters since 2003



Mission Areas

- Navigation
- Flood Risk Management
- Ecosystem Restoration
- Regulatory
- Recreation
- Emergency Management
- International and Interagency Support
- Water Supply



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Programs and Authorities

- Traditional Civil Works Project
 - ▶ Evaluation of problems, needs, and opportunities, formulation and evaluation of alternatives, and identification and implementation of cost effective solutions based on specific congressional authorization
- Continuing Authorities Program (CAP)
 - ▶ Authorities under which the Secretary of the Army, acting through the Chief of Engineers, is authorized to plan, design, and construct certain types of water resource and ecosystem restoration projects without additional or specific congressional authorization
- Planning Assistance to States (PAS – Section 22)
 - ▶ Technical assistance to support state comprehensive water and related land resource development plans
- Floodplain Management Services (FPMS)
 - ▶ Information, technical planning assistance, and guidance in identifying the magnitude and extent of flood hazards and planning appropriate use of the floodplains
- Watershed Planning (Section 729)
 - ▶ Watershed planning addresses problems, needs, and opportunities within a watershed or regional context; strives to achieve integrated water resources management; and, results in general, non-project specific, holistic plans or strategies to address those watershed needs



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5

Section 1207 of the Water Infrastructure Improvements for the Nation Act (WIIN) of 2016

Section 1207. Kanawha River Basin.

The Secretary shall conduct studies to determine the feasibility of implementing projects for flood risk management, ecosystem restoration, navigation, water supply, recreation, and other water resource related purposes within the Kanawha River Basin, West Virginia, Virginia, and North Carolina.

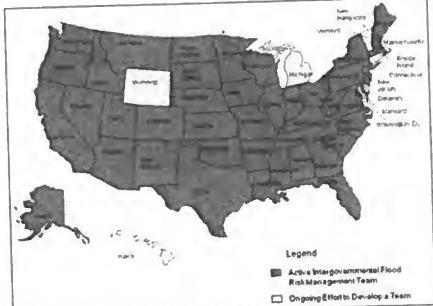
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6



Silver Jackets Program

- State-led Interagency approach to sharing knowledge, leveraging resources, and collaboratively reducing flood risk
 - ▶ Develop cohesive solutions for effectively managing the floodplain
 - ▶ Focus hazard planning and mitigation on state priorities
 - ▶ Enhance response and recovery efforts following natural disasters
 - ▶ Follow life-cycle risk management
 - ▶ Watershed perspectives
- Various Federal, State, and Local Agency Involvement (Examples)
 - ▶ State EMA, State DNR, USGS, NWS/NOAA, FEMA, USEPA, NRCS, Local Conservancy Districts, etc.
- Combines available agency resources
 - ▶ Funding
 - ▶ Programs
 - ▶ Technical expertise
- Website: <http://silverjackets.nfrmp.us/>



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Project Document

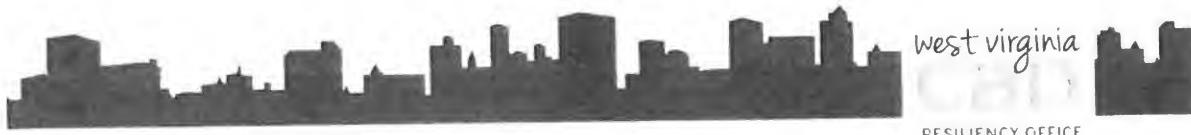
Project Applicant:

Date:

Project Name	West Virginia Disaster Debris Management Plan
Description <i>Clarifies the scope of the project</i>	Development of a plan to guide state and local agencies on how to properly manage debris generated by natural disasters such as flooding, tornado, snow, ice storm.
How the Project is Transformational <i>Ensures that the project infuses scalable and/or sustainable capability for the WVDO efforts going forward</i>	West Virginia currently does not have a recognized debris removal plan for state and local agencies to follow. The need for such a plan became apparent following the June 2016 floods and the amount of debris – both household and stream – that was created in multiple counties. This plan would create a framework for decision-makers by defining the various roles, responsibilities and procedures. It would also provide guidance for development and implementation for activities involved in managing debris removal operations following a natural disaster. The creation of the West Virginia Disaster Debris Management Plan would aid the new State Resiliency Office meet its legislative mission to coordinate and educate planning efforts that result in long-term disaster recovery efforts.
Project Goals	Develop document that defines the roles, responsibilities and procedures for managing debris removal activities following natural disasters in the state of West Virginia.
Key Activities	Review of existing debris management plans adopted by other states. Gather various stakeholders to identify process to develop the plan.
Milestones	
Finish Date	June 30, 2019
Deliverables/Results	Debris Management Plan
Anticipated Challenges	Obtaining input from the various state and local entities required to implement such a plan.
Resources/Budget	?

Project Goal:

Activities	Completion Date	Budget/Resources	Anticipated Challenges
Create a statewide debris management plan for West Virginia to address debris issues created by natural disasters.	June 2019	?	Receiving cross-agency, cross-state participation in endorsing plan. Creation of an education program to promote plan so local, regional and state organizations understand



Director of West Virginia State Resiliency Office

Summary

The Director of the West Virginia State Resilience Office (SRO) will lead the creation of a cohesive resilience strategy for the state, and will plan, coordinate, and direct resilience efforts across state departments. Resilience is a multifaceted, integrated, collaborative concept that crosses multiple disciplines and departments. The director will work in the Department of Commerce's Community Advancement and Development Office, guiding the creation of a resilience vision and strategy document, and work with local, state and federal partners and with external stakeholders to deliver key initiatives that will expand and complement the state's ongoing resilience work.

Responsibilities

The State Resiliency Office Director will serve as the point person for the State of West Virginia's comprehensive efforts on resilience, working across the state and with external stakeholders. Duties will the position will include, but are not limited to:

- Serve as coordinator of all economic and community resiliency planning and implementation efforts, including but not limited to flood protection programs and activities in the state
- Annually review the state flood protection plan and update the plan no less than biannually
- Recommend legislation to reduce or mitigate flood damage
- Report to the Joint Legislative Committee on Flooding at least quarterly
- Catalog, maintain and monitor a listing of current and proposed capital expenditures to reduce or mitigate flood damage or other resiliency efforts
- Coordinate planning of flood projects with federal agencies
- Improve professional management of flood plains
- Provide education and outreach on flooding issues to the citizens of this state
- Establish a single web site integrating all agency flood information
- Monitor federal funds and initiatives that become available for disaster recovery and economic and community resiliency
- Pursue additional funds and resources to assist not only with long term recovery efforts but also long term community and state wide resiliency efforts
- Coordinate, integrate and expand planning efforts in the state for hazard mitigation, long-term disaster recovery and economic diversification
- Coordinate long-term disaster recovery efforts in response to disasters as they occur
- Establish and facilitate regular communication between federal, state, local and private sector agencies and organizations to further economic and disaster resilience
- Work with identified and new federal partners to secure funds for disaster recovery and economic resilience and diversification.

- Establish and facilitate regular communication between federal, state, local and private sector agencies and organizations to further disaster recovery and economic resilience and diversification
- Coordinate long-term disaster recovery efforts in response to disasters as they occur
- Organize and implement long-term planning and recovery activities in response to specific disasters
- Organize and implement long-term planning for economic diversification of areas and regions dependent upon single-industry economies
- Coordinate, integrate, and expand planning efforts in the state for hazard mitigation, long-term disaster recovery, and economic diversification
- Strengthen local capacity and initiatives that address hazard mitigation, long-term disaster recovery, and economic diversification

Qualifications

The role will be complex and cross disciplinary, requiring senior level expertise and demonstrated experience with strategy, engagement and project delivery. The following qualifications are strongly preferred:

- Management experience preferably local, state or federal government. Preference will be given to experience with emergency management, planning and community development;
- Bachelor's degree from an accredited college or university in public or business administration or a related field, with a Master's degree or higher preferred;
- Experience leading strategic planning and operations in the areas of public policy, urban planning and/or economic or community development;
- A proven track record of working across populations and stakeholder groups;
- A proven track record of implementing a major project that required coordinating with and executing across multiple sectors or disciplines;
- A demonstrated knowledge of local, state and federal government;
- A proven track record as an effective organizational leader;
- Managed a team including both direct reports and peers, as well as consultants or contractors;
- Experience with stakeholders in the state with the demonstrated ability to establish and maintain relationships with all levels of government, businesses, non-governmental agencies and community leaders.



West Virginia Resiliency Office

Establishment Guide
and Best Strategies
October 16, 2017



FEMA



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Overview / Summary of Recommendations

The purpose of this guide is to support the West Virginia Department of Commerce's Development Office in developing and implementing the West Virginia State Resiliency Office (SRO). The sections of this document include recommended actions for implementation, including examples and best practices from similar efforts throughout the country. The recommendations range in terms of applicability. Some will need to be applied immediately to get the office stood up, while others could be long term goals. It is recommended that the SRO take a phased approach to implementation based upon the capacity and priorities of the state and office.

West Virginia is in a unique position to make resiliency a priority and change the paradigm for how decisions are made statewide. The SRO and resiliency in general must be fully engrained in the state, with decisions being made through the lens of resiliency. This guide serves as a starting point to get the department up and functioning. It is also the first draft of an evolving document. Pertinent document references will be provided in the future, and the IRC staff is willing to provide expanded research in areas that are a priority for the state. It will then be up to the SRO and state leadership to tailor the office to fit current and future needs of the state.

A brief overview of each section and its intended use follows:

Section 1: Resiliency Framework

This section: 1) outlines seven steps to develop a statewide resiliency framework, which can guide the state in how it addresses the shocks and stresses communities face; 2) empowers action to reduce vulnerability; and, 3) improves adaptability; and builds social capital in the face of hazards and changing conditions.

Recommendations: Develop a comprehensive Resiliency Framework that considers the state's social, physical, environmental and economic sectors for the state through a process that engages key stakeholders from across the entire state. The Framework should consist of at least seven steps which outline a path to address the challenges West Virginia communities face, empowering action to reduce vulnerability, improve adaptability, and build social capital in the face of hazards and changing conditions. Specific recommendations for each step are included in Section 2 of this guide.

Section 2: Staffing Needs, Roles, and Responsibilities

Here are considerations for how the state could set up the SRO staff structure, as well as the roles and responsibilities of the SRO as a whole. Also included is a list of suggested pre-disaster and post disaster activities for SRO staff.

Recommendations: As the SRO is established, support recruitment and retention of three core SRO staff: one director, and two project coordinators or specialists. As responsibilities increase and/or declared disasters arise, more dedicated involvement from SRO staff or additional personnel will be required to assist recovery in the impacted areas.

Beyond what is outlined in the legislation, the overall roles and activities of the SRO should include the following: 1) Provide ongoing training opportunities; 2) Promote forms of planning; 3) Ensure investments decrease vulnerability; 4) Develop a resilience data resource; 5) Assess at-risk assets; 6) Develop technical assistance and tools; 7) Identify or establish funding opportunities; and 8) Promote FEMA's community rating system.

Section 3: Organizational Chart

This section provides a recommended organizational structure for the SRO within the state government structure, including direct lines of authority and collaborative relationships with specific resiliency partners across the entire state.

Recommendations: The SRO is well positioned within the Department of Commerce's Development Office. It is key for the office to have latitude to reach across state departments and sectors to communicate and provide expertise for resiliency related items. This also includes engagement, communication and consultation across all sectors of society.

Section 4: Coordination with Partners

Here, the critical relationships, partners, and agencies the SRO should coordinate with in order to be most effective are outlined. The benefits of collaborations and methods of communication are also detailed.

Recommendations:

1. Develop and maintain open and effective communication and collaboration with all partners – local, state, and federal government agencies, local organizations, non-profits, non-governmental organizations (NGOs) – volunteer, and others. It is critical to not only follow the direct line of authority indicated in the organizational chart above, but to maintain working relationships with state and federal partners.
2. Work with existing processes to develop and maintain communication with all partners. Schedule regular, recurring meetings or conference calls to provide a venue for the SRO and partners to provide updates and ask questions.
3. Coordinate an annual summit, or other event in which resiliency training and planning activities can be provided to benefit all parties. Look at the possibility of leveraging existing events, such as the annual RPDC conference for the purpose of education and training.
4. Develop working groups or other committees as specific circumstances or opportunities present themselves.
5. Consider creating an SRO website or SharePoint site that all partners can access in order to share project updates, funding opportunities, and maintain a central repository for resiliency planning resources.

Section 5: Specific Factors for West Virginia Resiliency

This discussion encompasses the intertwined recovery and resiliency issues that impact the state as a whole, along with recommendations on how the SRO may lead or guide initiatives to address these issues. Implementation for almost all of the proposed solutions will require coordination across the entire state.

Recommendations: Include resiliency planning and functions in all efforts by addressing identified cross-cutting issues throughout West Virginia: 1) Communications and coordination; 2) Capacity; 3) Community Engagement; 4) Affordable Housing; 5) Broadband; 6) GIS Data; and 7) Economic Development. Specific recommendations for each cross-cutting issue are included in Section 8 of this guide.

Section 6: Monitoring and Measuring Progress

Methods by which the SRO can develop metrics to measure the success of their efforts, along with a scorecard for implementation of resiliency on a statewide level are presented.

Recommendations: Identify a set of performance metrics that can be used to independently evaluate the success of state-funded projects and identify benchmarks for success. Also, conduct an overall assessment of the implementation and application of resiliency across all state departments.

Section 7: Resources and Funding to Support Resiliency

Resources and funding opportunities are identified that may be leveraged by state and local entities to incorporate resiliency measures. This list is far from comprehensive but it provides the most common and consistent Federal resources that other states have identified and continually utilize.

Recommendations: Use state and federal resources to sustain the activities of the WVRO and all necessary staff, and work to include operational and staffing funds within each annual West Virginia State budget. Communicate available resources to other state agencies and local governments to support implementation of resiliency measures.

1. Resiliency Office Framework

A resiliency framework provides a state or community with a clearly defined path to address the shocks and stresses they face, empowering action to reduce vulnerability, improve adaptability, and build social capital in the face of hazards and changing conditions. The framework is not a standalone plan like a hazard mitigation plan or a comprehensive plan. Rather, a resiliency framework provides a collaborative forum to assess current risks, plans and practices, and to build resiliency into policies, actions and investments across multiple sectors and state entities.

A resiliency framework is meant to build on existing plans, policies and investments through an assessment of existing conditions in the community. Resiliency frameworks consider how the reduction of vulnerability to both shocks and stresses can integrate into day-to-day activities and long-term vision and goals. Through extensive stakeholder and public engagement, the framework planning team should also develop consensus about the state's vision and goals for resiliency, and use community input to guide development of strategies and ideas that help fulfill the vision and meet the established goals.

Inclusion of a broad range of stakeholders can help identify the resiliency-related strengths and challenges across the state. One mechanism for achieving this goal is to hold visioning and strategic planning meetings. Another option could be to conduct surveys, interviews, focus groups and small-group engagement sessions. Stakeholder engagement throughout this process will lead to meaningful and substantive input, as well as lay the foundation for implementation. Critical components of a resiliency framework include:

- A common understanding of resiliency and how it relates to state values;
- An analysis of baseline existing conditions in the state and the shocks and stresses that it faces;
- An inclusive engagement process that informs the public about the importance of resiliency, and informs the planning team as it develops the framework;
- A vision for the state that is supported by forward-looking goals, actionable strategies, and projects for action; and
- An articulated roadmap for ongoing coordination and action.

Resiliency Framework Example: New Orleans



Resiliency Framework Process

Step 1: Establishing Working Groups

One of the first and most important steps for development of a resiliency framework is to identify critical stakeholders to engage throughout the process. Questions to ask for establishing the team should include: Who should lead the process? Who needs to be at the table? What are the most effective ways to engage stakeholders and the public? Who will take ownership for implementation? How can the process be transparent? It is important that the team represent a wide variety of stakeholders within the state.

Recommendation: Use the board members identified in the SRO legislation to compose one of the multiple initial working group. After the first few meetings, assess any weaknesses or needs to ensure the group is comprehensive and inclusive. Ensure that the board members and/or their designee understand the time requirements that must be devoted to the framework and necessary technical proficiencies. When you have a compiled list of the core group of people immediately involved, start a second list of all the people, groups or agencies that your committees and subcommittees should communicate with in order to be successful. Think about the connections you have and the ones that you need to be successful.

Step 2: Establish Executive Committee

Developing a resiliency framework relies on strong leadership to identify and convene the right team, establish goals, set timelines, and synthesize input from the resiliency framework team and the public. The leadership group will ultimately drive implementation and coordinate maintenance and updating of the framework. It is helpful to the process if leadership has prior experience facilitating a planning or stakeholder engagement process, and the ability to work constructively with all participants to understand and integrate state values into the framework development process. The formation of an executive committee helps direct the planning process

and ensures a broad spectrum of state interests are represented. Additionally, it is important to establish ownership of the plan to ensure it is a living document with identified, pre-scheduled maintenance activities.

Recommendation: Create an executive committee of dedicated appointees that have the time and skillset required to see the project to fruition. Solicit the use of professional facilitation to guide the formal process. Let the steering committee design the framework with input from other members. Once areas of resiliency are identified, create working groups for each function that can report back to the entire board on a regular basis. Find a way to include the public and all geographic areas of the state. The sector working groups should be composed of both board members and subject matter experts to ensure a quality end product.

Step 3: Establish a Resiliency Vision Statement

The State's vision statement defines what the State wants to become and establishes the means to get there. It should signal the direction for the state's resiliency future, provide a foundation for strategic planning efforts, and in no uncertain terms, outline what the state represents.

Recommendation: Identify the common values of West Virginia and what it means to be a part of the state. Establish what the state is known for, what makes it unique, and more importantly, what would you like the state to be known for in terms of resiliency. Benchmark vision statements that the state has established in other planning documents and determine what time period the framework should address (10, 20, 30 years). These elements should be closely linked to the existing conditions, and shocks and stresses of the state.

VISION STATEMENT: OREGON EXAMPLE

"Oregon citizens will not only be protected from life-threatening physical harm, but because of risk reduction measures and pre-disaster planning, communities will recover more quickly and with less continuing vulnerability following a Cascadia subduction zone earthquake and tsunami."

Step 4: Establish Guiding Principles

Guiding principles are themes or ideas that reflect the values important to the state, and should be expected outcomes of all resiliency activities. Establishing guiding principles early on in the resiliency framework development process can help define and articulate what the state hopes to achieve through the resiliency framework.

Recommendation: Once principles are established, make sure to articulate them at the very beginning of each resiliency planning workshop or meeting to provide context for how goals and strategies should be developed. Also, keep the principles in front of committees as a continual reminder of their importance. The principles should be included in every group's plans and documents, making it clear that they are for the state as a whole.

GUIDING PRINCIPLES: VERMONT EXAMPLE

"A resilient Vermont is better prepared for and able to more effectively manage and bounce back from natural disasters and climate-related shocks, and the risks they pose to our economy, environment, and social well-being. A resilient Vermont focuses on both proactively reducing our vulnerabilities and improving our response and recovery, to ensure that we are continually strengthening our resilience. We must be resilient at every level – from individual residents, households, and businesses and neighborhoods, to the entire community and state. There is a shared sense of responsibility for resilience at every level and across the public, private, and nonprofit sectors."

GUIDING PRINCIPLES: STATE OF WASHINGTON EXAMPLE

"Life Safety and Human Health: Residents of the state of Washington should not suffer life-threatening injuries from earthquake-induced damage or develop serious illness from lack of emergency medical care after an earthquake. This includes enforcing and updating building codes, eliminating non-structural hazards, and ensuring continuity of emergency health care.

"Property Protection: Public and private property within the state of Washington should be built, retrofitted, or rebuilt to minimize earthquake-induced damage. This includes proper design and construction of both structural and non-structural elements.

"Economic Security: Residents and businesses within the state of Washington should have access to income opportunities to meet basic needs before and soon after an earthquake. This includes sufficient employment opportunities, market access, distribution capacity, and supplier access.

"Environmental Quality: The natural resources and ecosystems of Washington State should be managed in such a way as to minimize earthquake-induced damage. This includes the use of proper growth management, accident response capacity, and industrial safety measures.

"Community Continuity: All communities within the state of Washington should have the capacity to maintain their social networks and livelihoods after an earthquake disaster. This includes prevention of social-network disruption, social discrimination, and community bias."

Step 5: Categorize Sectors of Resilience

Stakeholders need to consider state resiliency in sectors or focus areas and provide strategies to address potential shocks and stresses. Each sector represents a fundamental building block that supports the state's overall resiliency. Through this process, stakeholders should be asked the following questions:

1. What does resiliency mean for the sector? What does this look like in action?
2. What are the shocks and stresses most often associated with this sector?
3. What potential strategies could enhance resiliency in this sector?

Recommendation: Identify 4-8 sectors where West Virginia will focus its resiliency efforts. Sector-specific committees should be asked to develop a vision for resiliency for how their sector should address resiliency, examine impacts from acute shocks, and identify chronic stresses that may lead to an acute shock, affect the state's ability to rebound quickly, or impact daily quality of life. These sectors will serve as primary drivers around which all actions will be organized and assessed. In effect, they will help to translate the commitments made in the vision and principles, into the desired results and actions the state will undertake to fulfill them.

SECTORS OF RESILIENCE: COLORADO & OREGON EXAMPLES

Colorado: Community, Economic, Health and Social, Housing, Infrastructure, and Watersheds and Natural Resources.

Oregon: Business and Workforce Continuity, Coastal Communities, Critical and Essential Buildings, Transportation, Energy, Information and Communications and Water and Wastewater Systems

Step 6: Identify Strengths and Challenges to Sectors

Every state has unique conditions that can strengthen or challenge the development of resiliency. Additionally, shocks and stresses vary from one state to the next and play a key role in identifying the objectives of the resiliency planning process. The working group members and additional stakeholders should be best suited to identify and analyze the major shocks and stresses in West Virginia.

Shocks & Stresses

Acute shocks are sudden, sharp events that threaten the well-being of the state. The frequency and intensity of a particular shock can trigger additional shocks (such as a powerful flood triggering major infrastructure failure), and the scale of the impacts will vary widely for an event depending on a variety of factors and conditions. Stresses are conditions or pressures that grow more slowly, eroding development progress over time. Stresses should not be confused with broader systemic constraints (e.g., poverty and weak governance) that also inhibit people's well-being, but are a more permanent feature of the development context.

Recommendation: Have each working group member compose a list of stakeholders and subject matter experts. Hold a series of workshops or separate meetings where attendees are asked to examine the capacity and resilience of their sectors in more detail. The members of the sector groups should use their collective expertise to:

- Evaluate the current condition of the state's sector, systems and infrastructure to predict how they will perform during a disaster and how quickly they can be restored if disrupted or damaged;
- Develop targets for the desired levels of performance;
- Develop target timeframes for the restoration of services and functions following a disaster;
- Define the vulnerabilities and key interdependencies of each sector. (For example, when considered alone, water might be restored within a day, but its vulnerability is that it depends on electricity, which could take longer than a day.); and
- Prepare recommendations for statewide action to achieve desired targets.

IDENTIFY STRENGTHS & CHALLENGES: COLORADO EXAMPLE

Shocks: Numerous fires and floods in recent years; cyber-attacks and other technology crimes

Stresses: Aging infrastructure; increasing population; energy generation and distribution systems reaching capacity; climate, including Colorado's severe freeze-and-thaw cycles; changing climate trends.

Problems: Communities across the state need asset risk assessments and management tools to understand the threats and vulnerabilities of infrastructure they control as well as how to prioritize opportunities to reduce vulnerabilities; There is no common definition of "resiliency" and inconsistent design standards; Funding limitations do not allow criteria for project evaluation or to prioritize/implement improvements; and Infrastructure is not seen as interconnected between jurisdictions and there are no incentives to do so.

**Colorado produced a Shocks and Stresses Worksheet," which will help to identify applicable shocks and stresses, the interdependencies between shocks and stresses that magnify vulnerability, and to understand how those vulnerabilities affect the community's ability to adapt to changing conditions or recover after an event.*

Step 7: Establish Goals, Strategies, and Recommendations

The final step is to assemble the recommendations that the committees or work groups have prepared, based on their meetings/workshops for each sector and derive from them a set of goals, strategies and recommendations that, if implemented, would lower risk, speed recovery, and have the greatest impact on the resilience of the state as a whole. They are intended to serve as tools for shaping the direction of planning, mitigation, and response, as well as the further development of policies that will improve statewide resilience.